

**Maine Department of Environmental Protection
Underground Injection Control Program**

**Summary of Floor Drain Inspections,
Violations and Compliance, 1998 - 2002**

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Background

The federal Underground Injection Control (UIC) Program was established in the early 1980's under the Safe Drinking Water Act to protect underground sources of drinking water by regulating subsurface discharge of both hazardous and non-hazardous pollutants. Maine's UIC Program was established in 1983 when the Board of Environmental Protection adopted a companion rule (06-096 CMR Chapter 573) to the federal regulations.

The focal point of the UIC Program in Maine has been the identification and closure of floor drains which are illegally discharging pollutants to septic systems, dry wells or the ground surface. From 1988 to 1993, eight surveys were mailed to businesses with the potential to have floor drains. More than 4,000 service stations, food processors, dry cleaners, repair facilities, and car and truck washes responded to the surveys and this information was compiled in a database.

Many facilities reported floor drains discharging into or onto the ground and were sent notices of regulation (NOR), with an explanation of the regulations and information on how to comply. Those facilities failing to comply with requirements set forth in the NOR letter were sent Notices of Violation (NOVs). Although compliance was achieved in most cases, many businesses continued to ignore the regulations. On-site follow-up inspections began in earnest in 1994, focussing on those non-compliant businesses within wellhead protection zones. However, due to a staff illness, the inspection program was forced into hiatus by 1997.

1998: Inspections and the Watershed Approach

A new program coordinator was hired and the inspection program was expanded in 1998, looking not only at businesses in wellhead protection zones, but throughout an entire city or town. Also, rather than address floor drains randomly around the state, the program moved to a watershed approach. Using the Maine DEP/EPA-agreed upon Watershed Plan, inspection efforts would focus within one watershed each year. The watershed schedule is depicted in Figure 1.

Using the watershed as a starting point, towns within the watershed were identified and ranked according to the number of facilities known to have floor drains, number of public water supply wellheads in the town, and whether or not municipal sewer services were available. Inspections were then conducted on a town-by-town basis based on the ranking system. Both businesses previously surveyed, but whose compliance status was unknown, and new facilities in the target sectors were inspected.

2000: Targeting Inspections and Return to Surveys

Although the existing database of UIC facilities provided ample leads for inspection, the majority of both inspections and violations were at sites not in the database. By 2000, the data in the UIC database was more than a decade old and began to prove less useful. More and more of the inspected facilities were found by simply riding the road – a somewhat time consuming, but effective, method of finding business scattered throughout rural Maine towns.

During 1998 and 1999, DEP inspectors consistently noticed that, no matter how remote or small a garage may be, nearly all were motor vehicle inspection stations. The Maine Department of Public Safety licenses businesses in Maine to inspect motor vehicles and most display a bright yellow plaque indicating they are inspection stations. Motor vehicle inspection stations were surveyed in 1989; however, by 2000 the business landscape had changed significantly. When contacted, the Department of Public Safety readily provided an updated list of all their licensed inspection stations.

Beginning in 2000, a modified approach to conducting surveys and inspections was instituted. Using the list provided by the Department of Public Safety, a comparison was made between that list and the UIC database for facilities in a watershed which had not been surveyed or inspected. A new, postage-prepaid, survey postcard was sent to each business with a letter encouraging voluntary corrective action. Follow-up, on-site inspections were then conducted at businesses which either (1) requested an inspection; (2) reported floor drains connected to a location which may be in violation; or (3) did not respond to the survey.

The postage-prepaid postcard has proven to be a very successful survey tool. From 2000 through 2002, more than 900 survey postcards were mailed out to licensed inspections stations. Forty-six percent of postcards were

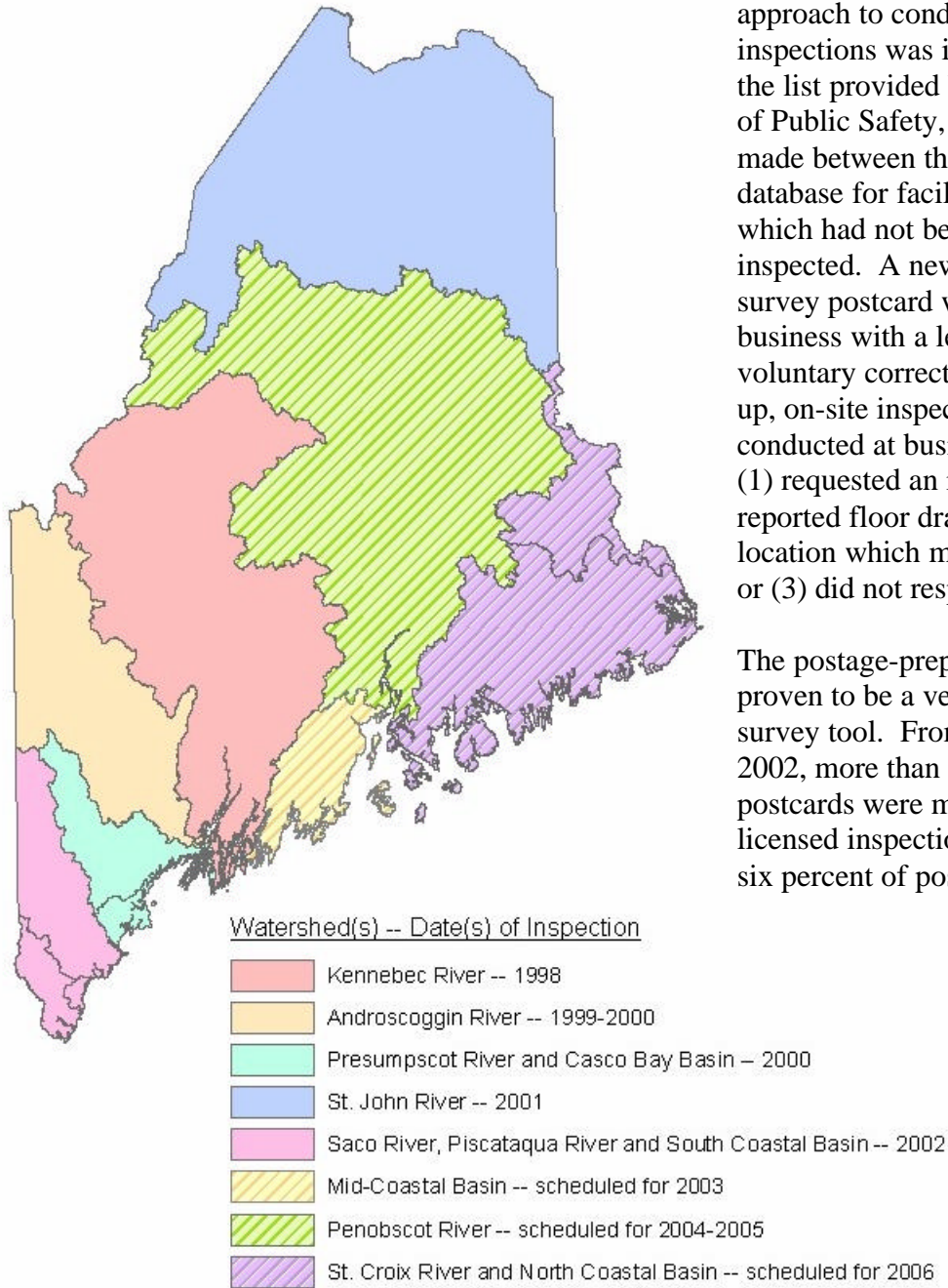


Figure 1: Maine Watersheds and Floor Drain Inspection Schedule

returned – an extremely high number for unsolicited mail. Of those responding to the survey, 58% responded that floor drains were present. Of the 42% of facilities responding that they had no floor drains, only a small number were actually visited, thus significantly increasing the efficiency of inspections and the ability of the field staff to locate potential violators. Figure 2 graphically depicts the response rate and the presence of floor drains in respondents.

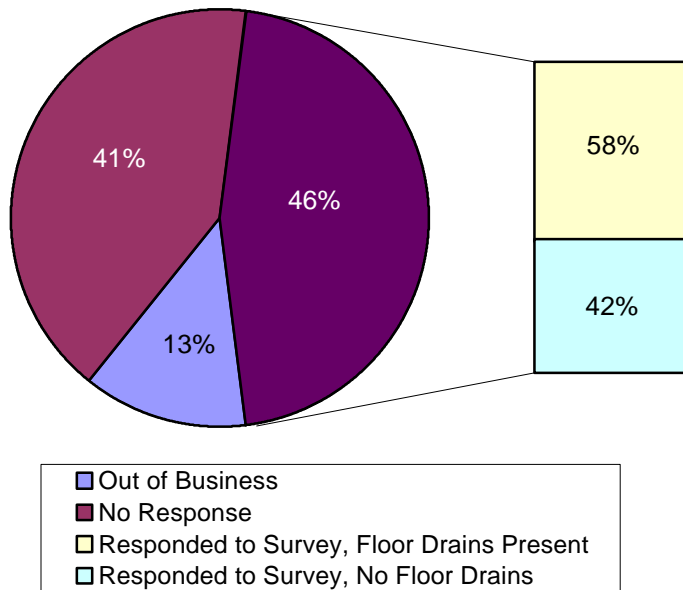


Figure 2: Response to Survey Postcard

between those business owners which had received the survey and those which were “cold called” from existing database records without advance information.

1998 to 2002: Five Years into the Watershed Approach

Figure 3 depicts the current breakdown of facilities in the UIC database by primary business type. The UIC database now contains floor drain information on 5,283 business, compiled from the pre-1994 surveys, the survey postcards and on-site inspections. Facilities which perform motor vehicle maintenance activities – automobile dealers, service stations, and repair businesses – constitute the vast majority of businesses in the database, highlighting the DEP’s emphasis on the closure of illegally-discharging floor drains in this sector.

Figure 4 summarizes the facility inspections, violations and compliance by watershed and year. In total, 1172 inspections were conducted during the five-year period in the designated watersheds (Kennebec River; Androscoggin River; Presumpscot River/Casco Bay basin; St. John River; Saco River/Piscataqua River/South Coastal basin). Violations were found at 381 facilities, resulting in a non-compliance rate of 33%. The non-compliance rate varied from year to year, with a low of 24% non-compliance in the Kennebec River watershed to a high of 49% in the St. John River watershed. A higher non-compliance rate is expected for years following

Another benefit to the survey postcard is that it allows business owners to be prepared for inspection. Although on-site inspections are not announced, business owners who had received but not returned the survey were aware of the purpose of the inspections. Many even took the time to research the proper floor drain connections by visiting the DEP website and knew they were in non-compliance by the time of the site visit. There was also a distinct attitudinal difference

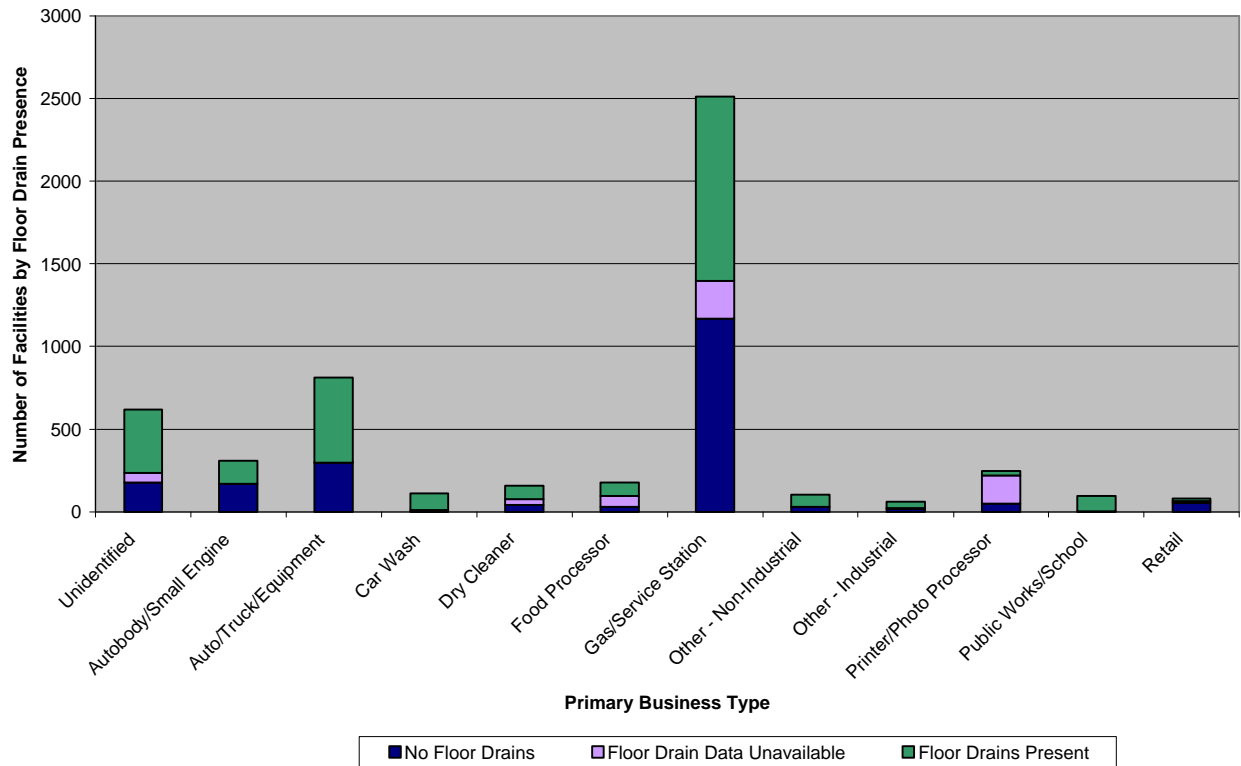


Figure 3 : UIC Facilities Surveyed and Inspected in Maine, by Primary Business Type

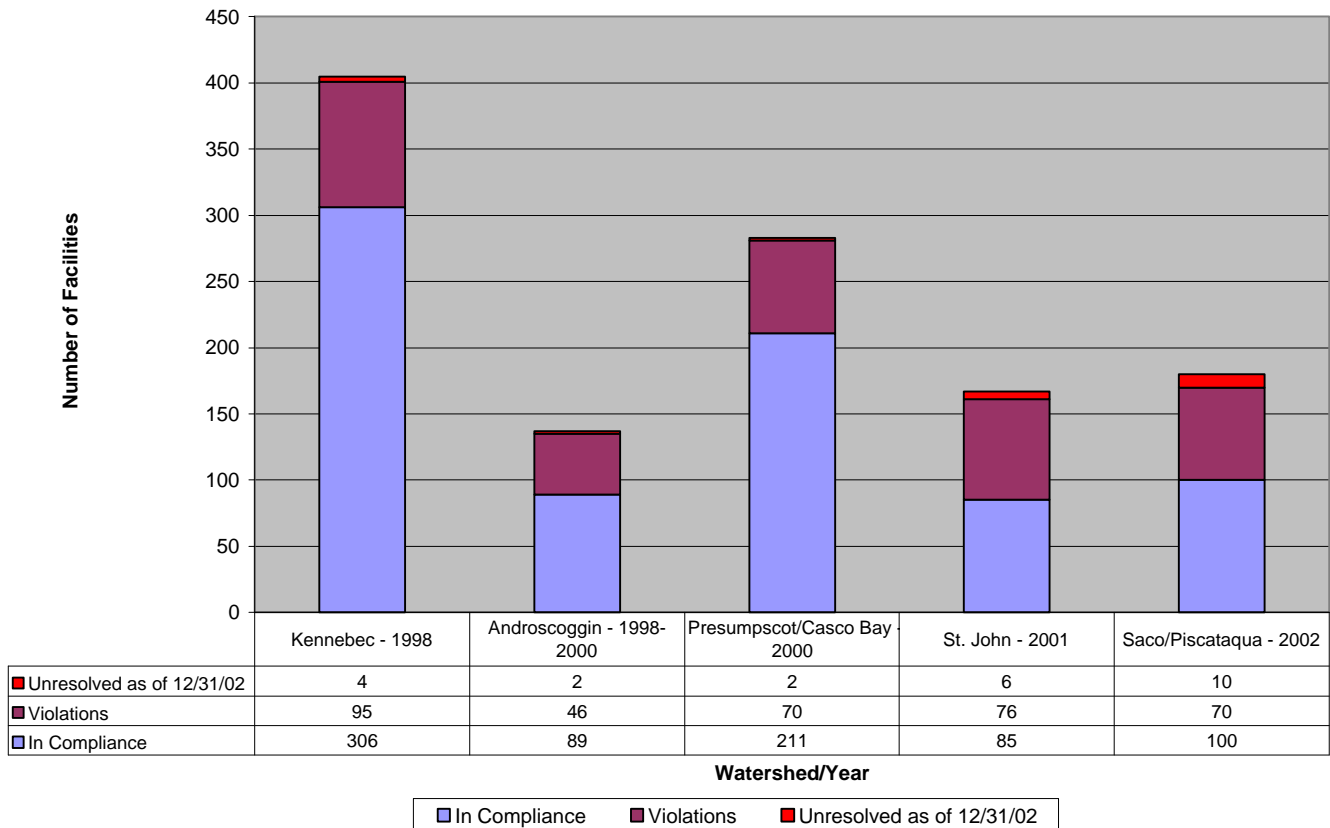
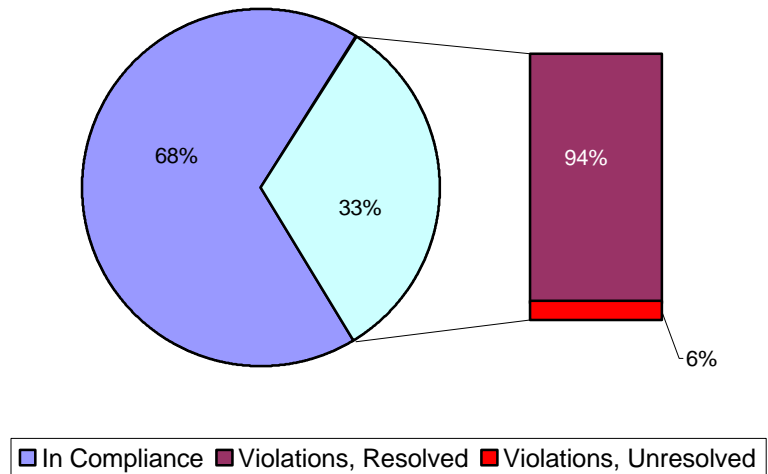


Figure 4: Facility Inspection, Compliance, and Violations by Watershed/Year

2000 due to the survey postcard's ability to screen out businesses with no floor drains or which are connected to municipal sewer.

Of the 381 facilities found to have illegally discharging floor drains, 357 had been returned to compliance by December 31, 2002, resulting in a 94% compliance rate (Figure 5). There are several reasons that a facility may not quickly be returned to compliance: (1) The facility may be in the process of correcting the violation, as is the case for the majority of facilities with unresolved violations in the most recently inspected watershed; (2) The facility may be awaiting funding to correct the violation, as is the case for the one state and eight municipal facilities that have unresolved violations; or (3) The facility may have gone out of business without satisfactorily resolving the violation.



**Figure 5: Compliance and Violation Resolution
(as of December 31, 2002)**

The years in which inspections exceeded 200 facilities – 1998 and 2000 – were years in which the UIC Program was able to hire additional staff to assist with inspections. Supplemental grants are no longer available, limiting the number of facilities capable of being inspected during the summer field season.

2003 and Beyond: Looking Ahead

The UIC Program will continue its watershed approach, conducting inspections in the three remaining watersheds – Mid-Coastal Basin, Penobscot River and St. Croix and North Coastal Basin watersheds – over the next four years. The survey postcard has proved useful and will continue to be used. The UIC Program does not anticipate being able to hire additional staff but will investigate the possibilities of cross-program cooperation to reach more facilities.